DROPLETS FROM THE PLANKTON NET XXIV. THE PREDOMINANT TYPE OF *VELELLA* IN JAPANESE WATERS[1)]

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With 1 Table

The appearance of *Katsuonokanmuri* or bonito's crown along the coast of Japan heralds the approach of warm water and good fishing for bonito. How fine that *Velella*, bringing such good news, also adds only beauty to the sea scape—no poisonous stings!

From November 1965 to June 1966, I recorded the occurrence of *Velella* along the beaches of Shirahama. A summary of my data is given in Table 1. *Velella*

Table 1. Records of *Velella* strandings, Shirahama

Date	*Type*	*Number*	*Size Range* mm
Nov. 5, 1965	Left	5	12 –25
Nov. 8, 1965	Left	15	9 –30
Nov. 9, 1965	Left	31	9 –38
	Right	6	3 –18
Mar. 4, 1966	Left	230	5.5–50
Mar. 5, 1966	Left	51	15 –58
Mar. 23–24, 1966	Left	70	14 –36
	Right	1	22
April 27, 1966	Left	283	7 –62
	Right	80	17 –61
June 8, 1966	Left	5	16 –29

Total: Left 690, Right 87

was stranded only nine days out of 230. In all, with the generous help of Mr. H. TANASE and some sailors of the glass bottom boats, I collected 777 specimens of *Velella*. Six-hundred ninety or 90% of them were left handed; that is, if the animal is held with the long axis north and south the crest runs from northwest to southeast. The remainder were right handed. In *Velella*, left handers sail to the left of the wind.

1) Contributions from the Seto Marine Biological Laboratory, No. 515.

Thus the theory of SAVILOV (1958–1961) is upheld. Left handed *Velella* sailing to the left of the wind should be most abundant along the outer edges of the clock-wise rotating wind and current system. The right-handers should be most abundant inside such a gyre. But winds and currents are variable with many eddies; so it is to be expected that nature does not perfectly fulfill our theories. In this case, she contradicts our predictions 10% of the time.

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